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* * * * * Welcome to STN International * * * * *

| | | | |
|--------------|----|--------|--|
| NEWS | 1 | | Web Page URLs for STN Seminar Schedule - N. America |
| NEWS | 2 | | "Ask CAS" for self-help around the clock |
| NEWS | 3 | OCT 23 | The Derwent World Patents Index suite of databases on STN has been enhanced and reloaded |
| NEWS | 4 | OCT 30 | CHEMLIST enhanced with new search and display field |
| NEWS | 5 | NOV 03 | JAPIO enhanced with IPC 8 features and functionality |
| NEWS | 6 | NOV 10 | CA/CAPLUS F-Term thesaurus enhanced |
| NEWS | 7 | NOV 10 | STN Express with Discover! free maintenance release Version 8.01c now available |
| NEWS | 8 | NOV 20 | CAS Registry Number crossover limit increased to 300,000 in additional databases |
| NEWS | 9 | NOV 20 | CA/CAPLUS to MARPAT accession number crossover limit increased to 50,000 |
| NEWS | 10 | DEC 01 | CAS REGISTRY updated with new ambiguity codes |
| NEWS | 11 | DEC 11 | CAS REGISTRY chemical nomenclature enhanced |
| NEWS | 12 | DEC 14 | WPIDS/WPINDEX/WPIX manual codes updated |
| NEWS | 13 | DEC 14 | GBFULL and FRFULL enhanced with IPC 8 features and functionality |
| NEWS | 14 | DEC 18 | CA/CAPLUS pre-1967 chemical substance index entries enhanced with preparation role |
| NEWS | 15 | DEC 18 | CA/CAPLUS patent kind codes updated |
| NEWS | 16 | DEC 18 | MARPAT to CA/CAPLUS accession number crossover limit increased to 50,000 |
| NEWS | 17 | DEC 18 | MEDLINE updated in preparation for 2007 reload |
| NEWS | 18 | DEC 27 | CA/CAPLUS enhanced with more pre-1907 records |
| NEWS | 19 | JAN 08 | CHEMLIST enhanced with New Zealand Inventory of Chemicals |
| NEWS | 20 | JAN 16 | CA/CAPLUS Company Name Thesaurus enhanced and reloaded |
| NEWS | 21 | JAN 16 | IPC version 2007.01 thesaurus available on STN |
| NEWS | 22 | JAN 16 | WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data |
| NEWS EXPRESS | | | NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006. |
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| NEWS LOGIN | | | Welcome Banner and News Items |
| NEWS IPC8 | | | For general information regarding STN implementation of IPC 8 |
| NEWS X25 | | | X.25 communication option no longer available |

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* * * * * STN Columbus * * * * *

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SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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0.21

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TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

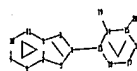
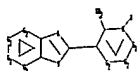
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<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10508760b.str



chain nodes :

19 20

ring nodes :

1 2 3 4 5 8 9 10 11 13 14 15 16 17 18

chain bonds :

4-13 14-19 15-20
 ring bonds :
 1-3 1-2 1-11 2-5 2-8 3-4 4-5 8-9 9-10 10-11 13-14 13-18 14-15 15-16
 16-17 17-18
 exact/norm bonds :
 1-3 1-2 1-11 2-5 2-8 3-4 4-5 4-13 8-9 9-10 10-11 13-14 13-18 14-15
 14-19 15-16 15-20 16-17 17-18
 isolated ring systems :
 containing 1 : 13 :

G1:C,O,S,N

G2:C,N

Match level :

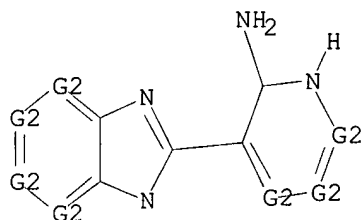
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 8:Atom 9:Atom 10:Atom 11:Atom 13:Atom
 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS 20:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 C,O,S,N

G2 C,N

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 10:46:15 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 132 TO ITERATE

100.0% PROCESSED 132 ITERATIONS

5 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 1951 TO 3329

PROJECTED ANSWERS: 5 TO 234

L2 5 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 10:46:20 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 2929 TO ITERATE

100.0% PROCESSED 2929 ITERATIONS

101 ANSWERS

SEARCH TIME: 00.00.01

L3 101 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS

| SINCE FILE | TOTAL |
|------------|---------|
| ENTRY | SESSION |
| 172.10 | 172.31 |

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 10:46:24 ON 19 JAN 2007
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FILE COVERS 1907 - 19 Jan 2007 VOL 146 ISS 5
FILE LAST UPDATED: 18 Jan 2007 (20070118/ED)

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=> s l3 full
L4 22 L3

=> s l4 and py<2002
21881270 PY<2002
L5 12 L4 AND PY<2002

=> d ibib abs hitstr tot

L5 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:894183 CAPLUS

DOCUMENT NUMBER: 134:222689

TITLE: Heterocyclic fused rings with bridgehead nitrogen atoms: single-step synthesis of azolo[1",2":1',2']pyrido[5',6':5,4]pyrimido[1,6-a]benzimidazole; pyrido[1,2-a]benzimidazole; pyrido[4",5":2',3']pyrido[6',5':4,5]pyrimido[1,6-a]benzimidazole and polysubstituted pyridine derivatives

AUTHOR(S): Raslan, M. A.

CORPORATE SOURCE: Department of Chemistry, Faculty of Science, South Valley University, Aswan, 81528, Egypt

SOURCE: Journal of the Chinese Chemical Society (Taipei) (2000), 47(4B), 961-965
CODEN: JCCTAC; ISSN: 0009-4536

PUBLISHER: Chinese Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:222689

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds., e.g. I-II (R = Ph, 4-MeOC₆H₄) and III, were prepared by reaction of arylidene-1H-benzimidazol-2-ylacetonitriles with 2-(cyanomethyl)benzimidazoles.

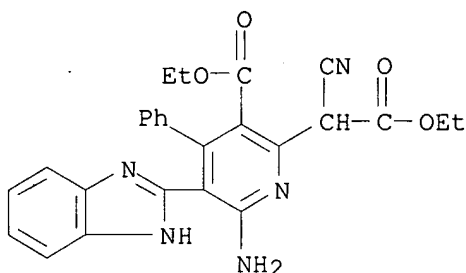
IT 329352-98-9P 329353-01-7P 329353-08-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of azolopyridopyrimidobenzimidazoles, pyridobenzimidazoles, pyridopyridopyrimidobenzimidazoles, and polysubstituted pyridines)

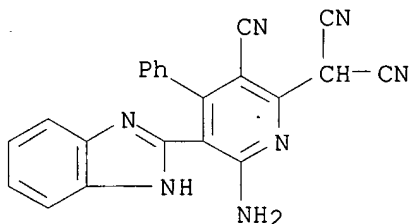
RN 329352-98-9 CAPLUS

CN 2-Pyridineacetic acid, 6-amino-5-(1H-benzimidazol-2-yl)- α -cyano-3-(ethoxycarbonyl)-4-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



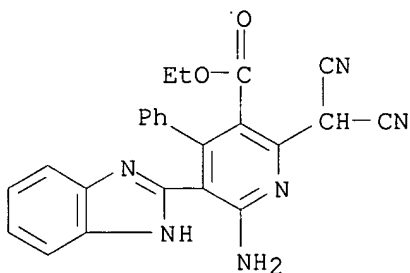
RN 329353-01-7 CAPLUS

CN Propanedinitrile, [6-amino-5-(1H-benzimidazol-2-yl)-3-cyano-4-phenyl-2-pyridinyl]- (9CI) (CA INDEX NAME)



RN 329353-08-4 CAPLUS

CN 3-Pyridinecarboxylic acid, 6-amino-5-(1H-benzimidazol-2-yl)-2-(dicyanomethyl)-4-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT:

22

THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:51829 CAPLUS

DOCUMENT NUMBER: 132:222418

TITLE: Activated nitriles in heterocyclic synthesis: a novel synthesis of polyfunctionally substituted pyridine derivatives

AUTHOR(S): Fadda, Ahmed A.; Refat, Hala M.

CORPORATE SOURCE: Department of Chemistry, Faculty of Science, Mansoura University, Mansoura, Egypt

SOURCE: Monatshefte fuer Chemie (1999), 130(12), 1487-1492
CODEN: MOCMB7; ISSN: 0026-9247

PUBLISHER: Springer-Verlag Wien

DOCUMENT TYPE: Journal

LANGUAGE: English

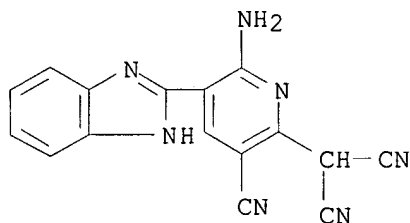
OTHER SOURCE(S): CASREACT 132:222418

AB A variety of polyfunctionally substituted pyridines were prepared by reacting enamino nitriles with formaldehyde and active methylene reagents or cinnamionitrile derivs.

IT 260996-88-1P 260996-97-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyfunctionally substituted pyridines from enamino nitriles)

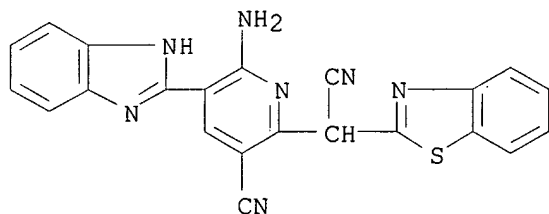
RN 260996-88-1 CAPLUS

CN Propanedinitrile, [6-amino-5-(1H-benzimidazol-2-yl)-3-cyano-2-pyridinyl]- (9CI) (CA INDEX NAME)



RN 260996-97-2 CAPLUS

CN 2-Benzothiazoleacetoneitrile, α -[6-amino-5-(1H-benzimidazol-2-yl)-3-cyano-2-pyridinyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:398002 CAPLUS

DOCUMENT NUMBER: 122:207474

TITLE: Chemical properties of the ultimate metabolites of 2-amino-5-phenylpyridine (PHE-P-1) and its ortho-methyl derivative

AUTHOR(S): Saris, C. P.; van Dijk, W. J.; Westra, J. G.; Hamzink, M. R. J.; van de Werken, G.; Zomer, G.; Stavenuiter, J. F. C.

CORPORATE SOURCE: The Netherlands Cancer Institute, Division of Molecular Carcinogenesis, 121 Plesmanlaan, CX Amsterdam, 1066, Neth.

SOURCE: Chemico-Biological Interactions (1995),

95(1,2), 29-40

CODEN: CBINA8; ISSN: 0009-2797

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The reactivity of the N-acetoxy metabolite of 2-amino-5-phenylpyridine (Phe-P-1), a pyrolysis product of phenylalanine, towards 2'-deoxyguanosine (dG), 2'-deoxyguanosine 3'-monophosphate (dGMP) and DNA was studied and compared with that of the ortho-Me derivative. Reaction of 2-acetoxyamino-5-phenylpyridine (N-OAc-APP) with dG resulted in substitution at the 8-position of this nucleoside by the ortho carbon of the amine. The major reaction, however, was acetylation of dG. In contrast, 2-acetoxyamino-3-methyl-5-phenylpyridine (N-OAc-MeAPP) mainly attacked the 8-position of dG by the exocyclic nitrogen and hardly any acetylation of the nucleoside occurred. The adducts were chromatog. isolated and characterized by their mass and NMR spectra. Upon reaction of N-acetoxy compds. with DNA and dGMP, formation of the same adducts was observed, besides the formation of minor amts. of unidentified compds., as was established by ³²P- postlabelling anal. The amount of DNA-bound amine, formed by the interaction of N-OAc-APP with DNA, was .apprx.15 times smaller than that observed after the reaction with the corresponding ortho-Me derivative under the same conditions.

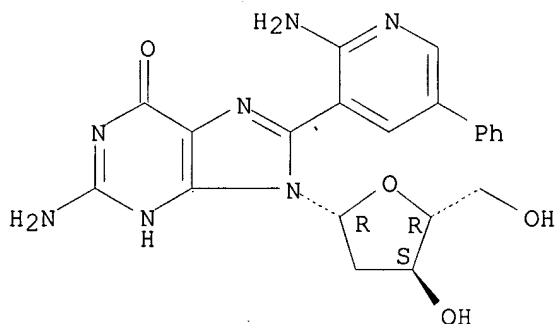
IT 162021-39-8

RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(metabolites of aminophenylpyridine and its ortho-Me derivative with deoxyguanosine and DNA)

RN 162021-39-8 CAPLUS

CN Guanosine, 8-(2-amino-5-phenyl-3-pyridinyl)-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:457478 CAPLUS

DOCUMENT NUMBER: 121:57478

TITLE: A novel synthesis of pyrido[2,3-b][1,5]benzodiazepines

AUTHOR(S): Okamoto, Yoshihisa; Zama, Yoshimi; Takagi, Kaname;

Kurasawa, Yoshihisa; Aotsuka, Tomoji

CORPORATE SOURCE: Coll. Lib. Arts Sci., Kitasato Univ., Sagamihara, 228, Japan

SOURCE: Journal of Heterocyclic Chemistry (1994), 31(1), 49-52

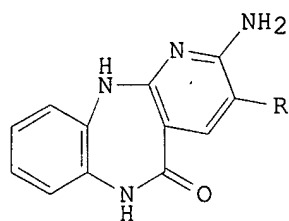
CODEN: JHTCAD; ISSN: 0022-152X

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 121:57478

GI



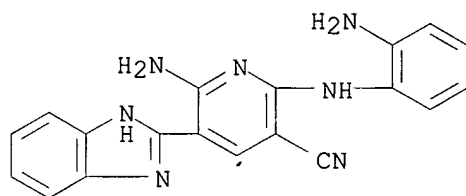
I

AB A novel and convenient preparation of the title compds. I (R = cyano, amido, pyridinyl, etc.) was described, involving the ring transformation of 1,5-benzodiazepine derivs. with active methylene compds.

IT 128719-99-3P, 3-Pyridinecarbonitrile, 6-amino-2-[(2-aminophenyl)amino]-5-(1H-benzimidazol-2-yl)- 156138-70-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as intermediate for pyrido[2,3-b][1,5]benzodiazepine)

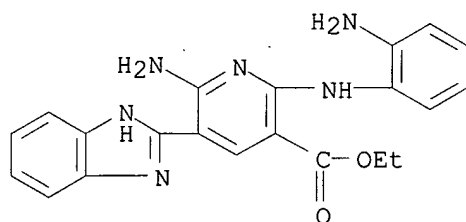
RN 128719-99-3 CAPLUS

CN 3-Pyridinecarbonitrile, 6-amino-2-[(2-aminophenyl)amino]-5-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



RN 156138-70-4 CAPLUS

CN 3-Pyridinecarboxylic acid, 6-amino-2-[(2-aminophenyl)amino]-5-(1H-benzimidazol-2-yl)-, ethyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:531123 CAPLUS

DOCUMENT NUMBER: 117:131123

TITLE: Reaction of benzimidazole-2-acetonitrile with carbonyl compounds

AUTHOR(S): Osman, S. A. M.; Hammad, M.; Swellem, R.; Shalaby, A. M.

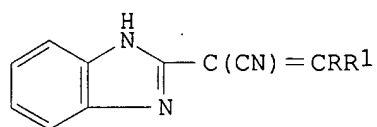
CORPORATE SOURCE: Natl. Res. Cent., Cairo, Egypt

SOURCE: Egyptian Journal of Chemistry (1990), Volume Date 1988, 31(6), 735-41
 CODEN: EGJCA3; ISSN: 0367-0422

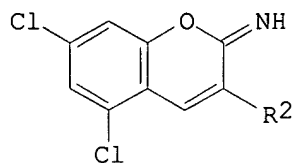
DOCUMENT TYPE: Journal

LANGUAGE: English

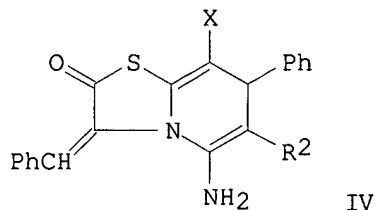
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II



III



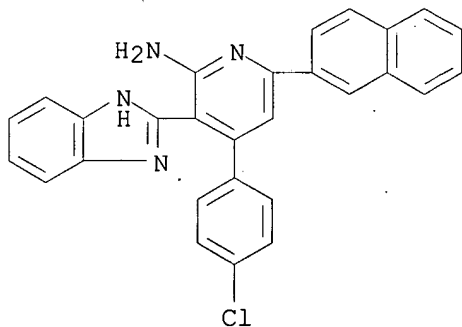
IV

AB Condensation of benzimidazole-2-acetonitrile (I) with RCOR1 [R = 2-thienyl, Ph, p-MeOC6H4, p-MeC6H4, R1 = Me; RR1 = (CH2)5] in toluene containing NH4OAc gave 70-80% benzimidazole-2-acrylonitriles II; similar treatment with 3,5-dichlorosalicylaldehyde gave 75% benzopyran derivative III (R2 = benzimidazol-2-yl) which was acidified by concentrated HCl to give 80% of the corresponding coumarin derivative. Condensation of RCOCH:CHR1 (R = 2-Cl10H7, R1 = p-ClC6H4) with I gave 75% R2CH(CN)CHR1CH2COR (R2 = 2-benzimidazolyl). Addnl. obtained were 85 and 80% imidazopyridine IV (X = CO2Et, CN).

IT 142888-35-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 142888-35-5 CAPLUS

CN 2-Pyridinamine, 3-(1H-benzimidazol-2-yl)-4-(4-chlorophenyl)-6-(2-naphthalenyl)- (9CI) (CA INDEX NAME)



L5 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:478108 CAPLUS

DOCUMENT NUMBER: 113:78108

TITLE: Ring transformation of 4-amino-1H-1,5-benzodiazepine-3-carbonitrile with active methylene compounds. A novel 1,3-migration of a cyano group in 1-amino-1-(2-aminoanilino)-2,4-dicyano-4-ethoxycarbonylbuta-1,3-diene

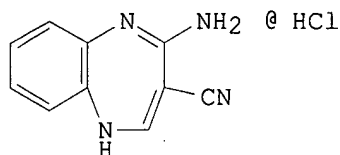
AUTHOR(S): Okamoto, Yoshihisa; Zama, Yoshimi; Itoh, Toshihiro; Aotsuka, Tomoji; Kurasawa, Yoshihisa; Takagi, Kaname

CORPORATE SOURCE: Coll. Lib. Arts Sci., Kitasato Univ., Sagamihara, 228, Japan

SOURCE: Journal of Chemical Research, Synopses (1990), (5), 136-7

DOCUMENT TYPE:
LANGUAGE:
OTHER SOURCE(S):
GI

CODEN: JRPSDC; ISSN: 0308-2342
Journal
English
CASREACT 113:78108

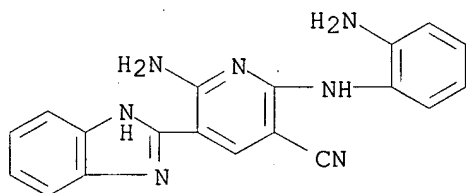


AB The ring transformations of 4-amino-1H-1,5-benzodiazepine-3-carbonitrile hydrochloride (I) with active methylene compds. are described. The contraction to a pyridine ring was readily accomplished with DBU as a catalyst. An alternative 1,3-rearrangement between the CN and CO2Et groups seemingly occurs in 2-H2NC6H4NHC(NH2):C(CN)CH:C(CN)CO2Et, for which a probable mechanism involves electrocyclic reaction, followed by ring opening.

IT 128719-99-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 128719-99-3 CAPLUS

CN 3-Pyridinecarbonitrile, 6-amino-2-[(2-aminophenyl)amino]-5-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



L5 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:231657 CAPLUS

DOCUMENT NUMBER: 110:231657

TITLE: Preparation of heterocyclyl imidazopyridines and -purines as cardiovascular agents

INVENTOR(S): Huel, Norbert; Heider, Joachim; Diederer, Willi; Van Meel, Jacques

PATENT ASSIGNEE(S): Thomae, Dr. Karl, G.m.b.H., Fed. Rep. Ger.

SOURCE: Ger. Offen., 15 pp.
CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|--------------|
| DE 3722992 | A1 | 19890119 | DE 1987-3722992 | 19870711 <-- |
| PRIORITY APPLN. INFO.: | | | DE 1987-3722992 | 19870711 |

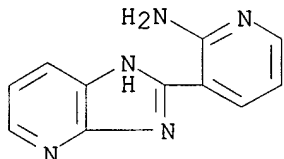
OTHER SOURCE(S): CASREACT 110:231657; MARPAT 110:231657

GI For diagram(s), see printed CA Issue.

AB The title compds. [I; AB = atoms to complete a pyridine or pyrimidine ring; R = (un)substituted C-attached heterocyclyl] were prepared
3,4-Diaminopyridine was refluxed .apprx.3.5 h with 2,6-dimethoxynicotinic

acid in POCl₃ to give 10% pyridylimidazopyridine II which gave a 68% increase in coronary contractility with a 25 mmHg lowering of blood pressure in cats receiving 1 mg/kg i.v.. Tablets were prepared each containing II 100.0, lactose 50.0, polyvinylpyrrolidone 5.0, CM-cellulose 19.0, and Mg stearate 1.0 mg.

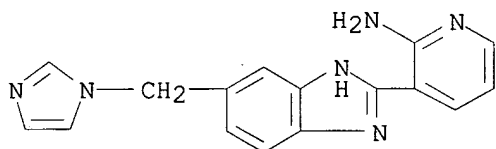
IT 120800-16-0P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of, as cardiovascular agent)
 RN 120800-16-0 CAPLUS
 CN 2-Pyridinamine, 3-(1H-imidazo[4,5-b]pyridin-2-yl)- (9CI) (CA INDEX NAME)



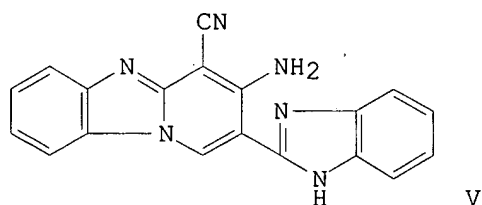
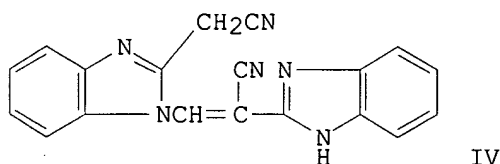
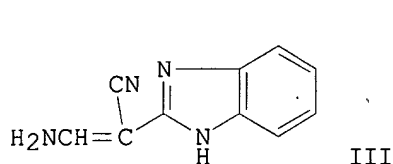
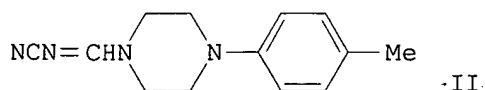
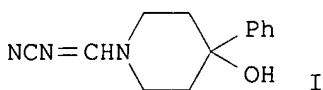
L5 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1988:473437 CAPLUS
 DOCUMENT NUMBER: 109:73437
 TITLE: Preparation of (1H-imidazol-1-ylmethyl)benzimidazoles as inhibitors of androgen biosynthesis
 INVENTOR(S): Raeymaekers, Alfons Herman M.; Freyne, Eddy Jean E.; Sanz, Gerard Charles
 PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg.
 SOURCE: Eur. Pat. Appl., 59 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|--------------|
| EP 260744 | A2 | 19880323 | EP 1987-201702 | 19870909 <-- |
| EP 260744 | A3 | 19890118 | | |
| EP 260744 | B1 | 19921216 | | |
| R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| US 4859684 | A | 19890822 | US 1987-78435 | 19870727 <-- |
| AT 83478 | T | 19930115 | AT 1987-201702 | 19870909 <-- |
| ES 2053524 | T3 | 19940801 | ES 1987-201702 | 19870909 <-- |
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| DK 174728 | B1 | 20031006 | | |
| FI 8703977 | A | 19880316 | FI 1987-3977 | 19870914 <-- |
| FI 87781 | B | 19921113 | | |
| FI 87781 | C | 19930225 | | |
| NO 8703840 | A | 19880316 | NO 1987-3840 | 19870914 <-- |
| NO 167202 | B | 19910708 | | |
| NO 167202 | C | 19911016 | | |
| AU 8778385 | A | 19880414 | AU 1987-78385 | 19870914 <-- |
| AU 595064 | B2 | 19900322 | | |
| HU 45051 | A2 | 19880530 | HU 1987-4071 | 19870914 <-- |
| HU 198039 | B | 19890728 | | |
| JP 01085975 | A | 19890330 | JP 1987-228679 | 19870914 <-- |
| JP 05087071 | B | 19931215 | | |
| ZA 8706881 | A | 19890426 | ZA 1987-6881 | 19870914 <-- |
| SU 1662350 | A3 | 19910707 | SU 1987-4203300 | 19870914 <-- |
| IL 83892 | A | 19911121 | IL 1987-83892 | 19870914 <-- |
| CA 1323366 | C | 19931019 | CA 1987-546763 | 19870914 <-- |

CN 87106423 A 19880420 CN 1987-106423 19870915 <--
 CN 1020903 B 19930526
 PRIORITY APPLN. INFO.: US 1986-907903 A 19860915
 EP 1987-201702 A 19870909
 OTHER SOURCE(S): CASREACT 109:73437; MARPAT 109:73437
 GI For diagram(s), see printed CA Issue.
 AB The title compds. [I; A = N:CR2, NR3C(:X); R = H, C1-10 alkyl, R4, R4Z; R1 = H, C1-10 alkyl, C3-7 cycloalkyl(alkyl), C1-10 alkoxy, OH, C3-6 alkenyloxy, C3-6 alkynyloxy, R4, R4O, R4Z, R4Z1, R5Z2, R6Z3; R2 = H, C3-7 cycloalkyl, halo, CO2H, alkoxy carbonyl, (hetero)aroyl, alkanoyl, quinolinyl, indolinyl, R4, R4Z, R4CH(OH), R5Z2, (un)substituted alkyl, alkenyl, PhO; R3 = H, C1-6 alkyl, R6Z; R4 = (amino)pyridinyl, imidazolyl, thiazolyl, (halo)thienyl, (halo)furyl, (un)substituted Ph; R5 = R4, R6; R6 = (un)substituted Ph; Z = C1-6 alkylene; Z1 = alkenyleneoxy, alkynyleneoxy; Z2 = alkyleneoxy; Z3 = alkynyleneoxy] and their stereoisomers and pharmaceutically acceptable salts were prepared, useful in treatment of androgenic hormone-dependent disorders in mammals. 4-[1-(1H-Imidazol-1-yl)propyl]-1,2-benzenediamine (preparation given) and F3CCO2H were stirred 15 min. at 80° to give 22% (imidazolylpropyl)benzimidazole II. In rats II reduced plasma testosterone levels with an ED50 of <2.5 mg/kg orally.
 IT 115574-63-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as androgen inhibitor)
 RN 115574-63-5 CAPLUS
 CN 2-Pyridinamine, 3-[5-(1H-imidazol-1-ylmethyl)-1H-benzimidazol-2-yl]- (9CI)
 (CA INDEX NAME)



L5 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1985:596055 CAPLUS
 DOCUMENT NUMBER: 103:196055
 TITLE: Antimycotic agents. XVII. Heterocyclically substituted nitriles
 AUTHOR(S): Kreutzberger, Alfred; Kreutzberger, Elfriede; Wiedemann, Dagmar
 CORPORATE SOURCE: Inst. Pharm.; Johannes Gutenberg-Univ., Mainz, D-6500, Fed. Rep. Ger.
 SOURCE: Chemiker-Zeitung (1985), 109(4), 153-5
 CODEN: CMKZAT; ISSN: 0009-2894
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 OTHER SOURCE(S): CASREACT 103:196055
 GI



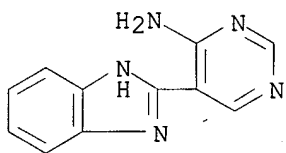
AB H2NCN was aminomethynylated with s-triazine to give a product which reacted with 4-hydroxy-4-phenylpiperidine to give the dehydro-N-Mannich base I and with 1-(p-tolyl)piperazine to give piperazine II. In the presence of MeOH, s-triazine and 2-benzimidazolylacetonitrile gave primary product cyanoethene III which was stabilized via intermediate IV to give pyridobenimidazole V. The dehydro-N-Mannich bases are fungicides; II, especially, inhibited *Coniophora puteana*.

IT 63613-29-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 63613-29-6 CAPLUS

CN 4-Pyrimidinamine, 5-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



L5 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:149217 CAPLUS

DOCUMENT NUMBER: 102:149217

TITLE: Synthesis of 6-arylpyrido[2',3':4,5]pyrimido[1,6-a]benzimidazoles

AUTHOR(S): Reddy, K. Vijayender; Mogilaiah, K.; Sreenivasulu, B.

CORPORATE SOURCE: Dep. Chem., Kakatiya Univ., Warangal, 505 009, India

SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1984

), 23B(11), 1106-7

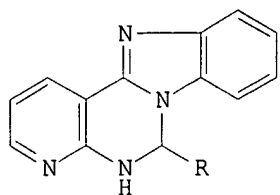
CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal

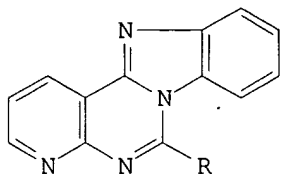
LANGUAGE: English

OTHER SOURCE(S): CASREACT 102:149217

GI



I



II

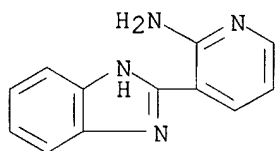
AB Refluxing 2-(2-amino-3-pyridyl)benzimidazole with RCHO (R = Ph, 4-MeOC₆H₄, 4-MeC₆H₄, 4-ClC₆H₄, 4-BrC₆H₄, 3-, 4-O₂NC₆H₄, 2-thienyl) in HOAc gave pyridopyrimidobenzimidazoles I; oxidation of which with KMnO₄ in acetone gave the title compds II.

IT 93587-11-2

RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with benzaldehyde, pyridopyrimidobenzimidazole from)

RN 93587-11-2 CAPLUS

CN 2-Pyridinamine, 3-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



L5 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:6309 CAPLUS

DOCUMENT NUMBER: 102:6309

TITLE: Synthesis of 2-(2-amino-3-pyridyl)benzimidazoles

AUTHOR(S): Reddy, K. Vijayender; Mogilaiah, K.; Sreenivasulu, B.

CORPORATE SOURCE: Univ. Coll., Kakatiya Univ., Warangal, 506 009, India

SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1984), 23B(9), 866-7

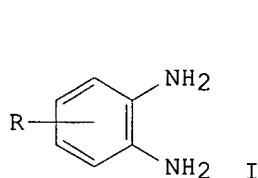
CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal

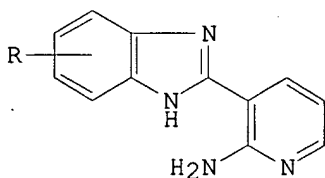
LANGUAGE: English

OTHER SOURCE(S): CASREACT 102:6309

GI



I



II

AB Refluxing 2-aminonicotinaldehyde with phenylenediamines I (R = H, 5-MeO, 4-Me, 5-Me, 5-Cl, 4-NO₂, 5-NO₂, 4,6-Cl₂, 4,6-Br₂, 4-Br-6 Me, 6-Br-4 Me) in EtOH and PhNO₂ gave the title compds. II in 55-82% yield. II showed moderate fungicidal and bactericidal activity.

IT 93526-94-4P 93587-11-2P 93587-12-3P

93587-13-4P 93587-14-5P 93587-15-6P

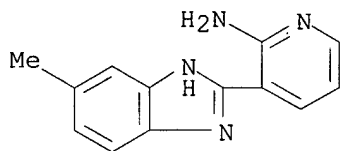
93587-16-7P 93587-17-8P 93587-18-9P

93616-44-5P 93700-91-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, fungicidal, and bactericidal activity of)

RN 93526-94-4 CAPLUS

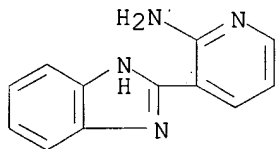
CN 2-Pyridinamine, 3-[4(or 5)-bromo-6-methyl-1H-benzimidazol-2-yl]- (9CI)
(CA INDEX NAME)



D1- Br

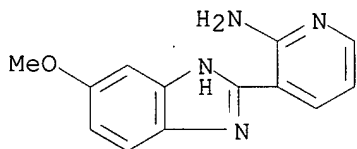
RN 93587-11-2 CAPLUS

CN 2-Pyridinamine, 3-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



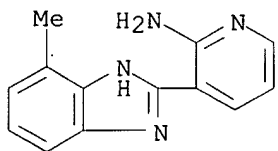
RN 93587-12-3 CAPLUS

CN 2-Pyridinamine, 3-(5-methoxy-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



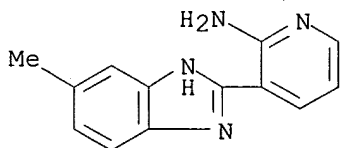
RN 93587-13-4 CAPLUS

CN 2-Pyridinamine, 3-(7-methyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)

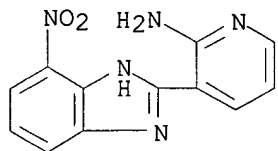


RN 93587-14-5 CAPLUS

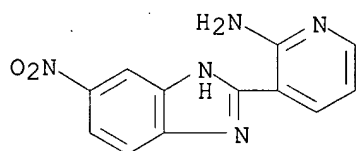
CN 2-Pyridinamine, 3-(5-methyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



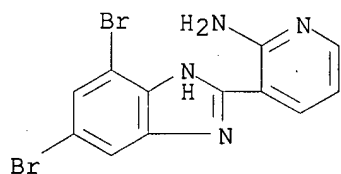
RN 93587-15-6 CAPLUS
CN 2-Pyridinamine, 3-(7-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



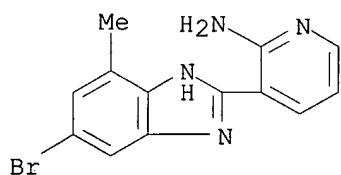
RN 93587-16-7 CAPLUS
CN 2-Pyridinamine, 3-(5-nitro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



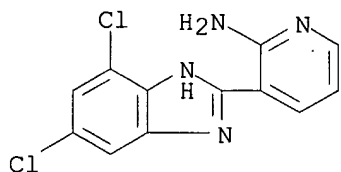
RN 93587-17-8 CAPLUS
CN 2-Pyridinamine, 3-(5,7-dibromo-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



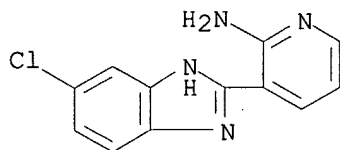
RN 93587-18-9 CAPLUS
CN 2-Pyridinamine, 3-(6-bromo-4-methyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



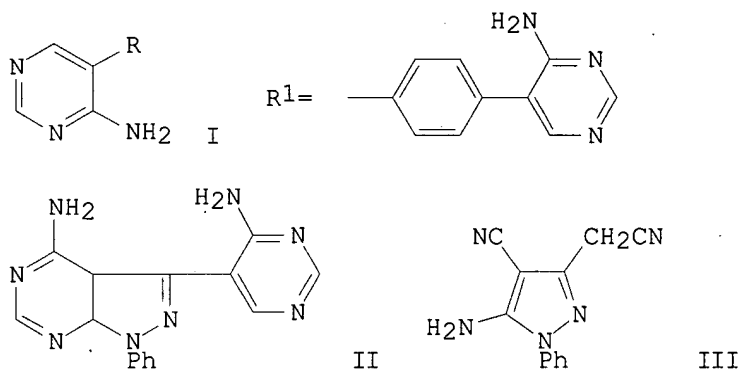
RN 93616-44-5 CAPLUS
CN 2-Pyridinamine, 3-(4,6-dichloro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



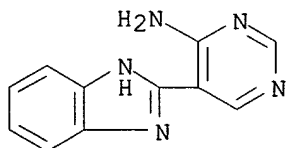
RN 93700-91-5 CAPLUS
CN 2-Pyridinamine, 3-(5-chloro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



L5 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1977:484940 CAPLUS
 DOCUMENT NUMBER: 87:84940
 TITLE: 5-Substituted 4-aminopyrimidines by aminomethinylation of acetonitriles
 AUTHOR(S): Kreutzberger, Alfred; Wiedemann, Dagmar
 CORPORATE SOURCE: Inst. Pharm., Freie Univ. Berlin, Berlin, Fed. Rep. Ger.
 SOURCE: Justus Liebig's Annalen der Chemie (1977), (4), 537-44
 CODEN: JLACBF; ISSN: 0075-4617
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 OTHER SOURCE(S): CASREACT 87:84940
 GI



AB 4-Aminopyrimidines I [R = 2-thienyl, indol-3-yl, 4-FC₆H₄, 3,4-(MeO)₂C₆H₃, 4-PhC₆H₄, 2-naphthyl, 1-cyclopenten-1-yl, 1-cyclohexen-1-yl, 2-benzimidazolyl] were prepared in 6-58% yields by treating s-triazine with CH₂-active RCH₂CN. The intermediary H₂NCH:CRCN (R = 1-cyclopenten-1-yl, 1-cyclohexen-1-yl, 2-benzimidazolyl) were isolable. Also prepared were 68% I (R = R₁) from p-NCCH₂C₆H₄CH₂CN and 28% pyrazolopyrimidine II from pyrazole III.
 IT 63613-29-6P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 RN 63613-29-6 CAPLUS
 CN 4-Pyrimidinamine, 5-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



=> d his

(FILE 'HOME' ENTERED AT 10:45:37 ON 19 JAN 2007)

FILE 'REGISTRY' ENTERED AT 10:45:52 ON 19 JAN 2007

L1 STRUCTURE UPLOADED

L2 5 S L1

L3 101 S L1 FULL

FILE 'CAPLUS' ENTERED AT 10:46:24 ON 19 JAN 2007

L4 22 S L3 FULL

L5 12 S L4 AND PY<2002

=> log y

COST IN U.S. DOLLARS

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ENTRY

SESSION

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244.61

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

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SESSION

CA SUBSCRIBER PRICE

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-9.36

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| NEWS 4 | OCT 30 | CHEMLIST enhanced with new search and display field |
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| NEWS 6 | NOV 10 | CA/CAPLUS F-Term thesaurus enhanced |
| NEWS 7 | NOV 10 | STN Express with Discover! free maintenance release Version 8.01c now available |
| NEWS 8 | NOV 20 | CAS Registry Number crossover limit increased to 300,000 in additional databases |
| NEWS 9 | NOV 20 | CA/CAPLUS to MARPAT accession number crossover limit increased to 50,000 |
| NEWS 10 | DEC 01 | CAS REGISTRY updated with new ambiguity codes |
| NEWS 11 | DEC 11 | CAS REGISTRY chemical nomenclature enhanced |
| NEWS 12 | DEC 14 | WPIDS/WPINDEX/WPIX manual codes updated |
| NEWS 13 | DEC 14 | GBFULL and FRFULL enhanced with IPC 8 features and functionality |
| NEWS 14 | DEC 18 | CA/CAPLUS pre-1967 chemical substance index entries enhanced with preparation role |
| NEWS 15 | DEC 18 | CA/CAPLUS patent kind codes updated |
| NEWS 16 | DEC 18 | MARPAT to CA/CAPLUS accession number crossover limit increased to 50,000 |
| NEWS 17 | DEC 18 | MEDLINE updated in preparation for 2007 reload |
| NEWS 18 | DEC 27 | CA/CAPLUS enhanced with more pre-1907 records |
| NEWS 19 | JAN 08 | CHEMLIST enhanced with New Zealand Inventory of Chemicals |
| NEWS 20 | JAN 16 | CA/CAPLUS Company Name Thesaurus enhanced and reloaded |
| NEWS 21 | JAN 16 | IPC version 2007.01 thesaurus available on STN |
| NEWS 22 | JAN 16 | WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data |
| | | |
| NEWS EXPRESS | NOVEMBER 10 | CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006. |
| | | |
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| NEWS IPC8 | For general information regarding STN implementation of IPC 8 | |
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ENTRY

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0.21

0.21

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DICTIONARY FILE UPDATES: 17 JAN 2007 HIGHEST RN 917745-84-7

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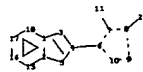
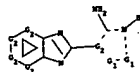
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chain nodes :

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11 20
ring nodes :
1 2 3 4 5 6 7 8 9 10 15 16 17 18
chain bonds :
4-6 7-11 8-20
ring bonds :
1-3 1-2 1-18 2-5 2-15 3-4 4-5 6-7 6-10 7-8 8-9 9-10 15-16 16-17 17-18

exact/norm bonds :
1-3 1-2 1-18 2-5 2-15 3-4 4-5 4-6 6-7 6-10 7-8 7-11 8-9 8-20 9-10
15-16 16-17 17-18
isolated ring systems :
containing 1 : 6 :

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G1:C,O,S,N

G2:C,N

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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:CLASS 15:Atom 16:Atom 17:Atom 18:Atom 20:CLASS

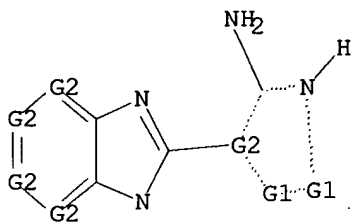
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L1 STRUCTURE UPLOADED

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=> d 11
L1 HAS NO ANSWERS
L1 STR

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G1 C,O,S,N

G2 C,N

Structure attributes must be viewed using STN Express query preparation.

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=> s 11
SAMPLE SEARCH INITIATED 10:36:12 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 218 TO ITERATE

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100.0% PROCESSED      218 ITERATIONS      50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

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FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:   3475 TO 5245
PROJECTED ANSWERS:      1282 TO 2438

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L2 50 SEA SSS SAM L1

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FULL SCREEN SEARCH COMPLETED - 4769 TO ITERATE

100.0% PROCESSED 4769 ITERATIONS 2103 ANSWERS
SEARCH TIME: 00.00.01

L3 2103 SEA SSS FUL L1

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COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 173.00 173.21

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L4 30 L3

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21881270 PY<2002
L5 9 L4 AND PY<2002

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L5 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:29417 CAPLUS
DOCUMENT NUMBER: 136:325484
TITLE: A mild and efficient synthesis of new benzimidazole derivatives via a one-pot reaction. An addition versus condensation reaction
AUTHOR(S): El Latif, Fawi M. Abd; Khalil, Mohamed A.; Helmy, Islam; Solieman, Hausien A.
CORPORATE SOURCE: Chemistry Department, Faculty of Science, South Valley University, Aswan, Egypt
SOURCE: Heterocyclic Communications (2001), 7(5), 485-492
CODEN: HCOMEX; ISSN: 0793-0283
PUBLISHER: Freund Publishing House Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:325484

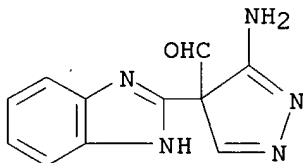
AB New polyfunctional benzimidazole derivs. of pharmaceutical interest were prepared starting from 2-cyanomethylbenzimidazole-2,2-dicarboxaldehyde, which reacts easily with different active methylene compds. and nucleophilic reagents. The addition predominantly lead to the cyclic products in competition with the condensation reaction.

IT 415680-43-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(one-pot preparation of benzimidazoles)

RN 415680-43-2 CAPLUS

CN 4H-Pyrazole-4-carboxaldehyde, 3-amino-4-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:634602 CAPLUS

DOCUMENT NUMBER: 135:344430

TITLE: Reactions of methyl 4-aminofurazan-3-carboximide with nitrogen-containing nucleophiles

AUTHOR(S): Sergievskii, A. V.; Pirogov, S. V.; Mel'nikova, S. F.; Tselinskii, I. V.

CORPORATE SOURCE: St. Petersburg State Institute of Technology, St. Petersburg, 198013, Russia

SOURCE: Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi Khimii) (2001), 37(5), 717-720

CODEN: RJOCEQ; ISSN: 1070-4280

PUBLISHER: MAIK Nauka/Interperiodica Publishing

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:344430

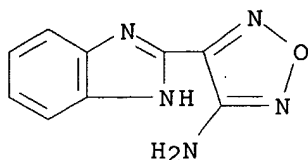
AB Me 4-aminofurazan-3-carboximide reacts with aromatic amines and hydrazines to give the corresponding amidines and amidrazones. The reaction of the title compound with o-phenylenediamine yields 3-amino-4-(2-benzimidazolyl)furazan, and with acylhydrazines N2-acyl-4-aminofurazan-3-carbohydrazides are formed. The latter undergo thermal intramol. cyclization with formation of 3-amino-4-(1,2,4-triazol-3-yl)furazan derivs. containing various substituents in position 5 of the triazole ring.

IT 332026-86-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(reactions of Me aminofurazancarboximide with nitrogen-containing nucleophiles)

RN 332026-86-5 CAPLUS

CN 1,2,5-Oxadiazol-3-amine, 4-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:516900 CAPLUS

DOCUMENT NUMBER: 135:272933

TITLE: Some reactions with ketene dithioacetals. Part I. Synthesis of antimicrobial pyrazolo[1,5-a]pyrimidines via the reaction of ketene dithioacetals and 5-aminopyrazoles

AUTHOR(S): Zaharan, Medhat A.; El-Sharief, Ahmed M. Sh.; El-Gaby, Mohamed S. A.; Ammar, Yousry A.; El-Said, Usama H.

CORPORATE SOURCE: Chemistry Department, Faculty of Science, Al-Azhar University, Nasr City, Egypt

SOURCE: Farmaco (2001), 56(4), 277-283
CODEN: FRMCE8; ISSN: 0014-827X

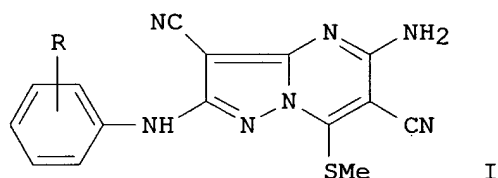
PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:272933

GI



AB Pyrazolo[1,5-a]pyrimidines such as I (R = 2-, 4-OEt) were synthesized via the reaction of ketene dithioacetals and 5-aminopyrazoles. The antibacterial and antifungal activities of some selected compds. were reported.

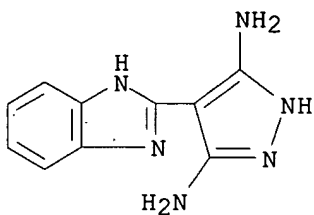
IT 134259-20-4P 364043-47-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

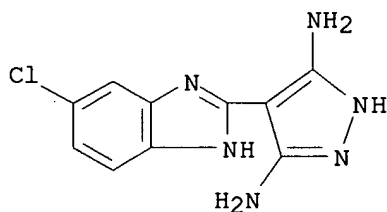
(preparation of antimicrobial pyrazolo[1,5-a]pyrimidines via reaction of ketene dithioacetals with 5-aminopyrazoles)

RN 134259-20-4 CAPLUS

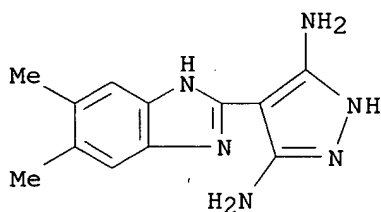
CN 1H-Pyrazole-3,5-diamine, 4-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



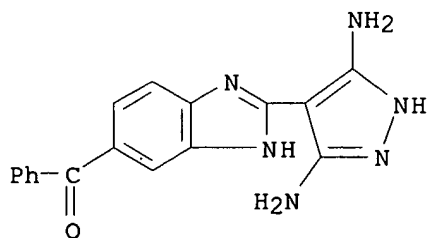
RN 364043-47-0 CAPLUS
 CN 1H-Pyrazole-3,5-diamine, 4-(5-chloro-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



IT 134259-21-5P 364043-46-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of antimicrobial pyrazolo[1,5-a]pyrimidines via reaction of ketene dithioacetals with 5-aminopyrazoles)
 RN 134259-21-5 CAPLUS
 CN 1H-Pyrazole-3,5-diamine, 4-(5,6-dimethyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



RN 364043-46-9 CAPLUS
 CN Methanone, [2-(3,5-diamino-1H-pyrazol-4-yl)-1H-benzimidazol-5-yl]phenyl- (9CI) (CA INDEX NAME)

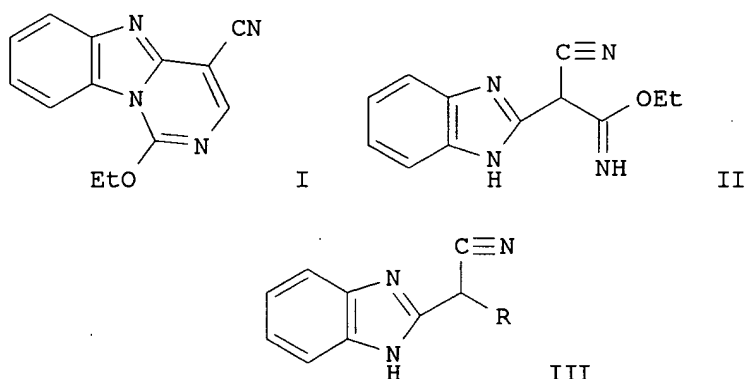


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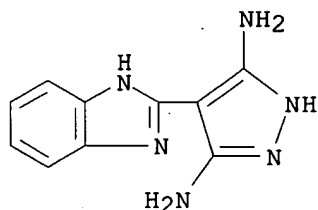
12

THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:661837 CAPLUS
 DOCUMENT NUMBER: 132:35648
 TITLE: Structure and properties of ethyl (2-benzimidazolyl)cyanoacetimidate
 AUTHOR(S): Yamaguchi, Yoshimi; Okamoto, Yoshihisa; Harada, Kazuho
 CORPORATE SOURCE: Center for Natural Sciences, Kitasato University, Sagami-hara, 228-8555, Japan
 SOURCE: Journal of Heterocyclic Chemistry (1999), 36(4), 841-847
 CODEN: JHTCAD; ISSN: 0022-152X
 PUBLISHER: HeteroCorporation
 DOCUMENT TYPE: Journal
 LANGUAGE: English
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AB The structure of the hydrolysis product of the cyanopyrimidobenzimidazole I was revised to be the (benzimidazolyl)cyanoacetimidate II based on crystal structure anal. II reacted with AcOH to give the cyanoacetamide III (R = CONH₂). Reaction of II with excess amines R₁NH₂ (R₁ = Bu, benzyl) gave amidines III [R = C(:NH)NHR₁, C(:NR₁)NHR₁].
 IT 134259-20-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (mol. structure and reactivity of benzimidazolylcyanoacetimidate, the cyano(ethoxy)pyrimidobenzimidazole hydrolysis product)
 RN 134259-20-4 CAPLUS
 CN 1H-Pyrazole-3,5-diamine, 4-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



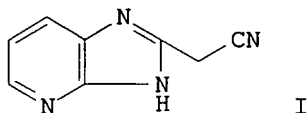
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1994:409247 CAPLUS
 DOCUMENT NUMBER: 121:9247
 TITLE: Studies on 2-substituted methylazoles: the preparation

and reactions of 2-cyanomethylimidazo[4,5-b]pyridine

AUTHOR(S): Nawwar, Galal A. M.; Chabaka, Laila M.
 CORPORATE SOURCE: Natl. Res. Cent., Cairo, Egypt
 SOURCE: Anales de Quimica (1993), 89(3), 375-8
 CODEN: ANQUEX; ISSN: 1130-2283

DOCUMENT TYPE: Journal
 LANGUAGE: English
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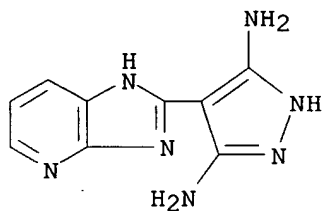


AB Direct condensation of 2,3-diaminopyridine with EtO2CCH2CN gave (cyanomethyl)imidazopyridine I which could be used to prepare 2-coumarinyl, pyrazolyl, or pyrano[2,3-c]pyrazolyl derivs. as well as the corresponding hydroximino and diazo compds.

IT 155393-40-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 155393-40-1 CAPLUS

CN 1H-Pyrazole-3,5-diamine, 4-(1H-imidazo[4,5-b]pyridin-2-yl)- (9CI) (CA INDEX NAME)



L5 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:509430 CAPLUS
 DOCUMENT NUMBER: 115:109430

TITLE: Adenine photodimerization in deoxyadenylate sequences: elucidation of the mechanism through structural studies of a major d(ApA) photoproduct

AUTHOR(S): Kumar, Shiv; Joshi, Prakash C.; Sharma, Narain D.; Bose, Samarendra N.; Davies, R. Jeremy H.; Takeda, Naohito; McCloskey, James A.

CORPORATE SOURCE: Sch. Biol. Biochem., Queen's Univ., Belfast, BT9 7BL, UK

SOURCE: Nucleic Acids Research (1991), 19(11), 2841-7
 CODEN: NARHAD; ISSN: 0305-1048

DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The mechanism of the photodimerization of adjacent adenine bases on the same strand of DNA has been elucidated by determining the structure of 1 of the 2 major photoproducts that are formed by UV irradiation of the deoxydinucleoside monophosphate d(ApA). The photoproduct, denoted d(ApA)*, corresponds to a species of adenine photodimer first described by

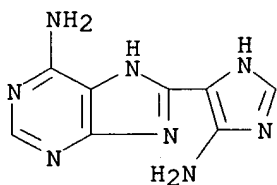
D. Poerschke (1973). From a detailed examination of its chemical and spectroscopic properties, including comparisons with the model compound N-cyano-N1-(1-methylimidazol-5-yl)formamidine, it is deduced that d(ApA)* contains a deoxyadenosine unit covalently linked through its C(8) position to C(4) of an imidazole N(1) deoxyribonucleoside moiety bearing an N-cyanoformamidino substituent at C(5). On treatment with acid, d(ApA)* is degraded with high specificity to 8-(5-aminoimidazol-4-yl)adenine whose identity has been confirmed by independent chemical synthesis. It is concluded that the primary event in adenine photodimerization entails photoaddn. of the N(7)-C(8) double bond of the 5'-adenine across the C(6) and C(5) positions of the 3'-adenine. The azetidine species thus generated acts as a common precursor in both types of d(ApA) photoproduct which are formed from it by competing modes of azetidine ring fission.

IT 135792-66-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 135792-66-4 CAPLUS

CN 1H-Purin-6-amine, 8-(5-amino-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



L5 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:471468 CAPLUS

DOCUMENT NUMBER: 115:71468

TITLE: Aroylthiocyanates in heterocyclic synthesis:
synthesis of new benzimidazole derivatives with
anticipated fungicidal activity

AUTHOR(S): Nawwar, Galal A. M.; Chabaka, Laila M.; Omar, Mahmoud
T.

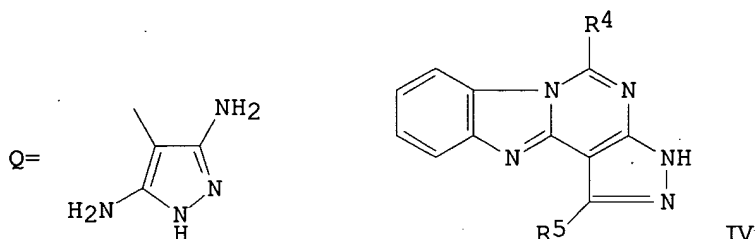
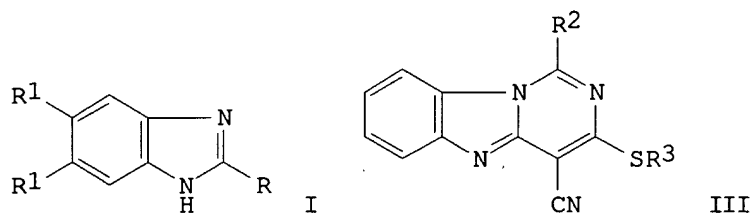
CORPORATE SOURCE: Natl. Res. Cent., Cairo, Egypt

SOURCE: Phosphorus, Sulfur and Silicon and the Related
Elements (1991), 57(1-2), 65-73
CODEN: PSSLEC; ISSN: 1042-6507

DOCUMENT TYPE: Journal

LANGUAGE: English

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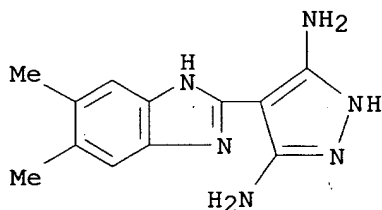
AB The reactions of benzoyl- and furoylisothiocyanate with 2-(cyanomethyl)benzimidazoles lead to the formation of 1:1 adducts I [R = C(CN):C(SH)NHCOR₂, R₁ = H, Me, R₂ = Ph, 2-furyl] (II) and the corresponding α-aroyle derivs. I [R = C(CN):C(OH)R₂, R₁ = H, Me]. II (R₁ = H, R₂ = Ph, 2-furyl) cyclized affording pyrimido [3,4-a]benzimidazole derivs. III (R₃ = Me, Et). They also afforded (pyrazol-4-yl)benzimidazole derivs. I (R = Q, R₁ = H, Me) when II (R₁ = H, Me, R₂ = Ph, 2-furyl) reacts with hydrazine. III (R₂ = Ph, R₃ = Et) and I (R = Q, R₁ = H) could be cyclized to pyrazolo[4',5':5,4]pyrimidobenzimidazoles IV (R₄ = Ph, R₅ = NH₂; R₄ = Me, R₅ = NHAc; resp.).

IT 134259-21-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 134259-21-5 CAPLUS

CN 1H-Pyrazole-3,5-diamine, 4-(5,6-dimethyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)

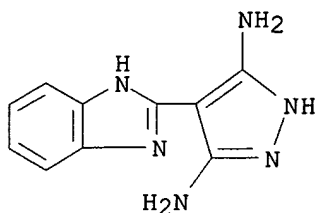


IT 134259-20-4P

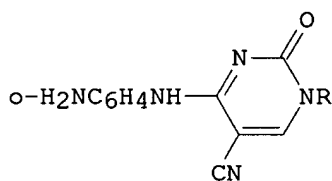
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, acylation and intramol. cyclocondensation of)

RN 134259-20-4 CAPLUS

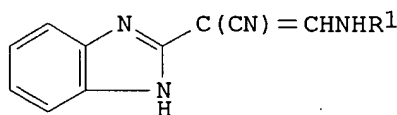
CN 1H-Pyrazole-3,5-diamine, 4-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



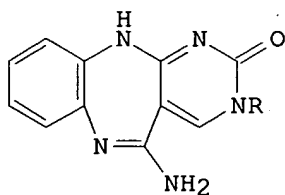
L5 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1988:5979 CAPLUS
 DOCUMENT NUMBER: 108:5979
 TITLE: Synthesis of pyrimidino[4,5-b][1,5]benzodiazepin-2-ones and pyrimidino[1,6-a]benzimidazol-1-ones from 4-[(ethoxycarbonyl)amino]-1H-1,5-benzodiazepine-3-carbonitrile via 4-(2-aminoanilino)pyrimidin-2(1H)-one-5-carbonitriles
 AUTHOR(S): Takagi, Kaname; Aotsuka, Tomoji; Morita, Hikari; Okamoto, Yoshihisa
 CORPORATE SOURCE: Cent. Res. Lab., Zeria Pharm. Co., Saitama, 360, Japan
 SOURCE: Journal of Heterocyclic Chemistry (1986), 23(5), 1443-9
 CODEN: JHTCAD; ISSN: 0022-152X
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 108:5979
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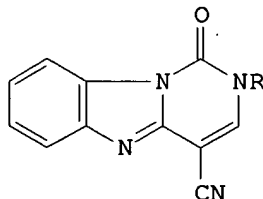
II



III



IV



V

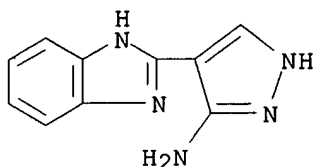
AB Reactions of 4-[(ethoxycarbonyl)amino]-1H-1,5-benzodiazepine-3-carbonitrile (I) with RNH₂ (R = Me, Et, Pr, Me₂CH, Bu, allyl, PhCH₂, cyclohexyl) gave (aminoanilino)pyrimidinonecarbonitriles II. Analogous reactions of I with R₁NH₂ (R₁ = Ph, p-MeOC₆H₄) afforded [anilino(cyanovinyl)]benzimidazoles III. Upon treatment with Et₃N, II cyclized to give pyrimidinobenzodiazepinones IV. I reacted with p-MeC₆H₄SO₃H to give pyrimidinobenzimidazolonecarbonitriles V. Mechanistic pathways are proposed to account for the products.

IT 111852-27-8P

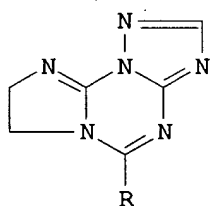
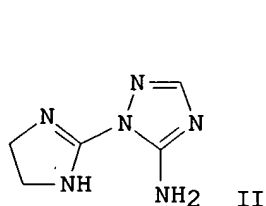
RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 111852-27-8 CAPLUS

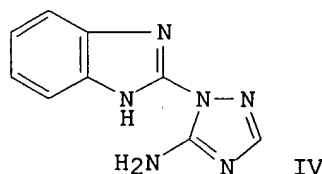
CN 1H-Pyrazol-3-amine, 4-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



L5 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1983:575673 CAPLUS
 DOCUMENT NUMBER: 99:175673
 TITLE: New condensed tri- and tetracyclic 1,2,4-triazole ring systems
 AUTHOR(S): Svetlik, Jan
 CORPORATE SOURCE: Drug Res. Inst., Bratislava, 811 04, Czech.
 SOURCE: Heterocycles (1983), 20(8), 1495-9
 CODEN: HTCYAM; ISSN: 0385-5414
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 99:175673
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III



IV

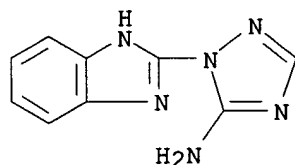
AB The reaction of 2-hydrazino-2-imidazoline with $\text{HC}(:\text{NCN})\text{OEt}$ (I) gave triazoleamine derivative II. II was heated with $\text{RC}(\text{OEt})_3$ ($\text{R} = \text{H}, \text{Me}$) to give fused heterocycles III. 2-Hydrazinobenzimidazole was treated with I to yield triazoleamine derivative IV.

IT 87633-57-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and cyclocondensation of, with ortho esters)

RN 87633-57-6 CAPLUS

CN 1H-1,2,4-Triazol-5-amine, 1-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



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(FILE 'HOME' ENTERED AT 10:34:39 ON 19 JAN 2007)

FILE 'REGISTRY' ENTERED AT 10:34:51 ON 19 JAN 2007

L1 STRUCTURE UPLOADED
L2 50 S L1
L3 2103 S L1 FULL

FILE 'CAPLUS' ENTERED AT 10:36:21 ON 19 JAN 2007

L4 30 S L3 FULL
L5 9 S L4 AND PY<2002

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